

HSCA6-GEOMETRY EOC

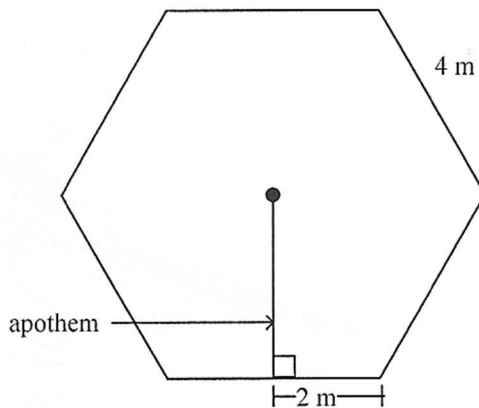
(G.8B)

1. Jenny's birthday cake is circular and has a 30 cm radius. Her slice creates an arc with a central angle of 120° . What is the area of Jenny's slice of cake? Give your answer in terms of π .

- A. $300\pi \text{ cm}^2$
- B. $10\pi \text{ cm}^2$
- C. $150\pi \text{ cm}^2$
- D. $3600\pi \text{ cm}^2$

(G.8A)

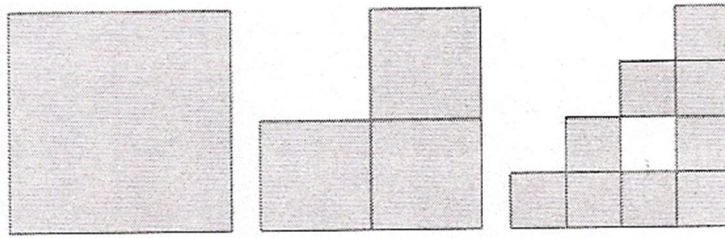
2. Find the area of a regular hexagon with side length 4 m. Round to the nearest tenth.



- A. 83.1 m^2
- B. 24 m^2
- C. 41.6 m^2
- D. 20.8 m^2

(G.5B)

3. The first three stages of a fractal are shown below.

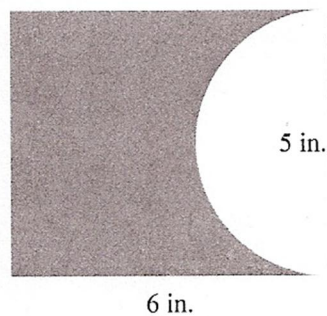


In each stage after the first, each square is divided into 4 squares, then the top left square is removed. If the pattern continues, how many shaded squares will be in the n th stage?

- A. $3n$
- B. n^3
- C. 3^n
- D. $3^{(n-1)}$

(G.8A)

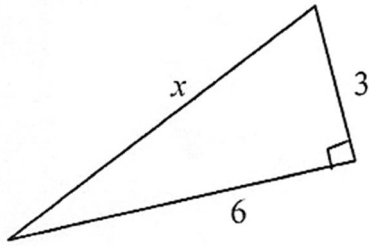
4. Find the shaded area. Round to the nearest tenth.



- A. 20.2 in^2
- B. 10.4 in^2
- C. 25.5 in^2
- D. 13.3 in^2

(G.8C)

5. Find the value of x . Express your answer in simplest radical form.



A. $x = 3\sqrt{5}$

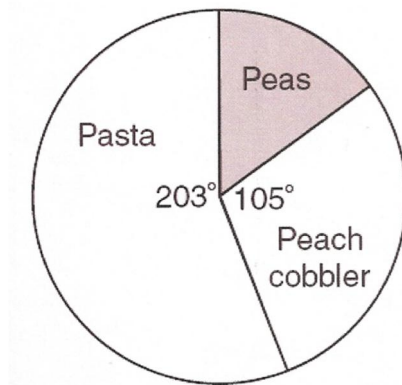
B. $x = 9\sqrt{5}$

C. $x = 3\sqrt{3}$

D. $x = 5\sqrt{3}$

(G.8B)

6. A frozen dinner is divided into 3 sections on a circular plate with a 12-inch diameter.



What is the approximate length of the arc of the section containing peas?

A. 3 in.

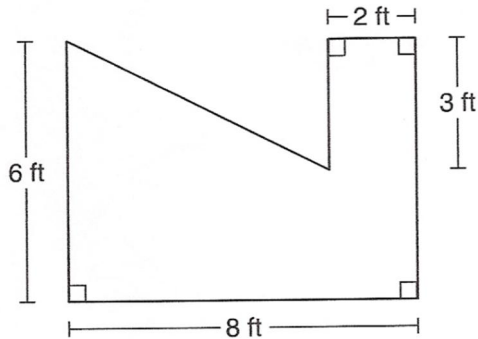
B. 21 in.

C. 16 in.

D. 5 in.

(G.8A)

7. The figure below shows the dimensions of a section of Mr. Green's garden that he will use for planting flowers.



What is the area of Mr. Green's garden that he will use for planting flowers?

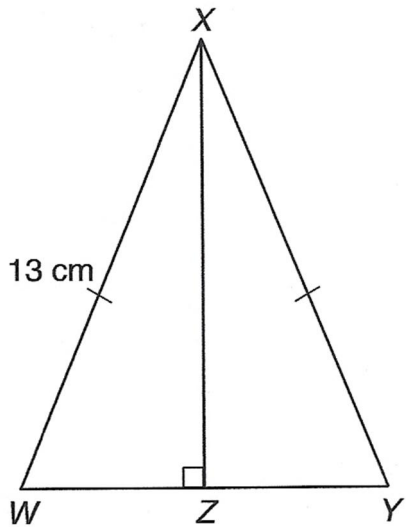
- A. 42 ft.^2
- B. 30 ft.^2
- C. 39 ft.^2
- D. 24 ft.^2

(G.8C)

8. Which of the following sets of numbers represents the side lengths in units of a right triangle?

- A. 5, 3.2, 4.1
- B. 3.6, 6, 4.8
- C. 4.5, 8, 6.7
- D. 8.5, 5.2, 10

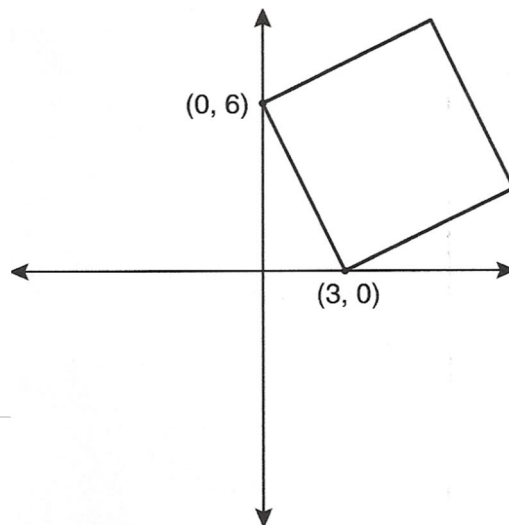
(G.8C)

9. $\triangle WXY$ is isosceles.

\overline{WY} is 10 centimeters long. Find the length of \overline{XZ} .

- A. 5 cm
- B. 10 cm
- C. 12 cm
- D. 13 cm

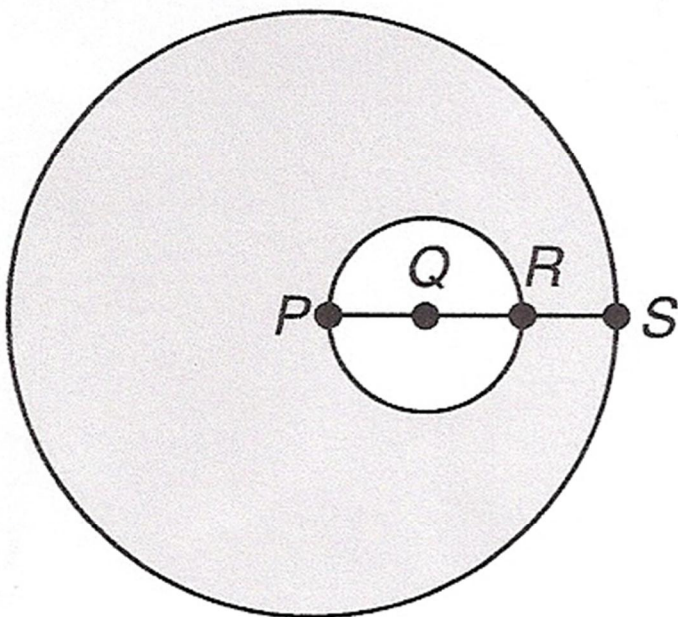
(G.8C)

10. What is the area of the square in the figure below?

- A. 5.2 square units
- B. 6.7 square units
- C. 27 square units
- D. 45 square units

(G.8A)

11. The figure below shows circle P and circle Q .
 \overline{PQ} , \overline{QR} , and \overline{RS} are each 3 units long.

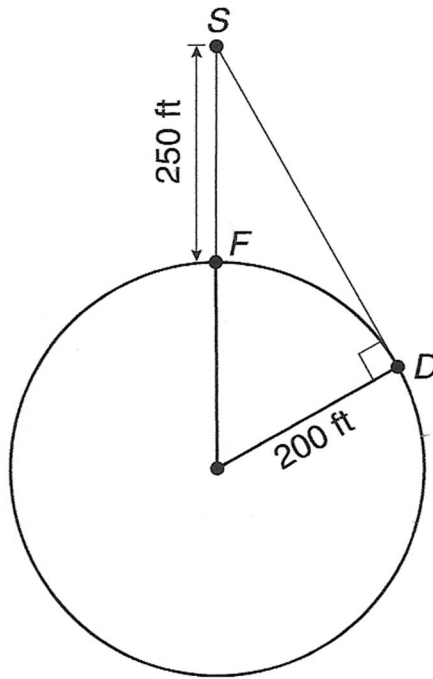


What is the area of the shaded region in terms of π ?

- A 36π
- B 72π
- C 12π
- D 78π

(G.8C)

12. Mr. Krueger attended an event at the Good Time Sport Area. The area is in the shape of a circle with a radius of 200 feet. He parked his car in the lot at point S, which is 250 feet away from the entrance at point F.



Mr. Krueger left the arena through the exit at point D and walked a straight-line path to his parked car. About how far away was his parked car from the exit at point D?

- A. 200 ft
- B. 403 ft
- C. 492 ft
- D. 650 ft